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ARM

Senator Myers Tours SGP CART Site

Oklahoma State Senator David Myers (center) toured the SGP CART site on June 17, 2003. Also pictured are John Schatz (left), SGP Deputy Site Operations Manager/Site Safety Officer, and Jim Teske, SGP Site Operations Manager. (ARM photo.)

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ARM Instrument Team Meets at SGP

ARM instrument team members visiting the SGP central facility listen as Tom Stoffel of the National Renewable Energy Laboratory (far right) and Zack Waddell of the SGP staff (at instrument) review the maintenance procedures for the solar and infrared radiation station. (ARM photo.)

Instrument team representatives from all three ARM CART sites (SGP, North Slope Alaska [NSA], and Tropical Western Pacific [TWP]) met at the SGP central facility during the week of June 9, 2003. The meeting agenda included an instrument-by-instrument review of the operation and maintenance procedures used by instrument mentors and technicians, as well as refresher training for the technicians who maintain the instruments year-round. The group discussed new functions for ARM instrument mentors and the engineering and operations procedures for replacing instruments in the field or deploying new instruments. Attendees also viewed demonstrations of a new reporting system for data quality problems.

John Schmelzer, instrument mentor for the multifilter rotating shadowband radiometer (MFRSR), describes alignment procedures to (standing, from left) SGP technicians Zack Waddell, James Martin, Kyle Cole, Mike Rainwater, Kevin Klassen, and Tim Groves. Seated are instrument mentor David Cook (Argonne National Laboratory, back) and TWP technician Rex Pearson (Australian Bureau of Meteorology). (ARM photo.)

The 47 attendees included staff members from the NSA, TWP, and SGP site operations teams; representatives of the site scientist office, the data systems organization, and the data quality office; and 17 instrument mentors representing 5 national laboratories. Participants traveled to Oklahoma from around the globe, including Darwin, Australia (TWP), and Barrow, Alaska (NSA).

AERI Cross-Calibration Study Concludes

A brief study at the SGP central facility on June 6-11, 2003, compared two types of interferometers, instruments that measure the absolute spectral radiance of the sky and sky brightness temperature directly overhead. The measured data can be used to calculate vertical profiles of atmospheric temperature and relative humidity.

The present ARM instrument, the atmospheric emitted radiance interferometer (AERI), was built by the University of Wisconsin. For comparison, researchers at the Department of Energy's Remote Sensing Laboratory in Las Vegas, Nevada, brought a Bomem model 304 interferometer to the SGP site. This new-generation interferometer could replace the AERI in the future. Analysis of performance data for the two systems is in progress.

Scientists from the Department of Energy's Remote Sensing Laboratory in Las Vegas, Nevada, check data from the Bomem model 304 interferometer in the comparison study with the ARM AERI. Pictured are (from left) Vince Stern, Amy Becker, Ding Yuan, and Charles Golanics. (ARM photo.)